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Experiments for Development of Models

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Abstract

Most numerical models, developed for describing the dynamic behavior of reactive materials, rely heavily on experimental data. However, product-oriented nature of explosives work has discouraged the search for data needed for scientific understanding of the phenomenon. While it is very important to know the performance of various explosives in terms of its ability to push metal plates the true understanding lies in the detonation wave itself. New and more sophisticated experiments are needed to provide more accurate measurements of various physical parameters in that region. Some current experiments are reviewed and several new ones are suggested. These new measurements should shed some new light onto the problem and at the same time provide new information for a more precise and truthful modeling of the detonation phenomenon.

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